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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,010	08/04/2003	Ralph N. Wall	55123P244	5811
8791	7590	05/10/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025			HASAN, MOHAMMED A	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/634,010

Applicant(s)

WALL ET AL.

Examiner

Mohammed Hasan

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4- 10, 14, 18 - 20, 23 - 25 is/are rejected.
- 7) ☒ Claim(s) 3, 11- 13, 15 - 17, 21, 22, 26 - 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Oath/Declaration

1. Oath and declaration filed on 8/4/2003 is accepted.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4 – 10, 14, 18 – 20, 23 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okura et al (US 2002/0126265) in view of Miura et al (6,242,792 B1).

Regarding claim 1, Okura et al discloses (refer to figure 4) a device having a reflection layer (82), a dielectric layer (81) (paragraph 0175). Okura discloses all of the limitations except a thin film resistor formed over the dielectric layer. However, Miura et al discloses (refer to figure 1) a thin film resistor 3 (column 6, line 40) . It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a thin film resistor in to the Okura an optical device for the purpose of laser-trimmed with a high degree of precision without precise control of a height of a top portion as taught by Miura et al (column 3, lines 10 – 15).

Regarding claim 2, Okura et al discloses, reflector comprises a refractory metal (paragraph 0175).

Regarding claim 4, Miura et al discloses, laser energy used to laser trimming thin film resistor (3) (column3, lines 10 – 15).

Regarding claim 5, Okura et al discloses first dielectric layer (81) is a pre-determined thickness range, which optimizes the laser trimming of thin film resistor (paragraph 0175).

Regarding claim 6, Okura et al discloses first dielectric layer comprises silicon dioxide (SiO_2) (paragraph 0175).

Regarding claim 7, Miura et al discloses thin film resistor comprises chromium silicon (CrSi), nickel chromium (NiCr) and or tantalum nitride (TaN) (column 6, line 40).

Regarding claim 8, Okura et al discloses (refer to figure 4) a second dielectric layer (83) (paragraph 0175).

Regarding claim 9, Okura et al discloses a second dielectric layer (83) is a pre-determined thickness range which optimizes the laser trimming of thin film resistor (paragraph 0175).

Regarding claim 10, Okura et al discloses second dielectric layer comprises silicon dioxide (SiO_2) (paragraph 0175).

Regarding claim 14, Okura et al discloses (refer to figure 4) a device having a reflection layer (82), a dielectric layer (81) (paragraph 0175). Okura discloses all of the limitations except a thin film resistor formed over the dielectric layer. However, Miura et al discloses (refer to figure 1) a thin film resistor 3 (column 6, line 40) It would have

been obvious to one of ordinary skill in the art at the time the invention was made to provide a thin film resistor in to the Okura an optical device for the purpose of laser-trimmed with a high degree of precision without precise control of a height of a top portion as taught by Miura et al (column 3, lines 10 – 15).

Regarding claim 18, Miura et al discloses laser energy used to laser trimming thin film resistor (3), wherein reflector substantially reflects laser energy towards thin film resistor (column 3, lines 10 – 15).

Regarding claim 19, Okura et al discloses first dielectric layer (81) is a pre-determined thickness range, which optimizes the laser trimming of thin film resistor (paragraph 0175).

Regarding claim 20, Okura et al discloses first dielectric layer comprises silicon dioxide (SiO_2) (paragraph 0175).

Regarding claim 23, Okura et al discloses (refer to figure 4) a second dielectric layer (83) (paragraph 0175).

Regarding claim 24, Okura et al discloses a second dielectric layer (83) is a pre-determined thickness range which optimizes the laser trimming of thin film resistor (paragraph 0175).

Regarding claim 25, Okura et al discloses second dielectric layer comprises silicon dioxide (SiO_2) (paragraph 0175).

Allowable Subject Matter

3. Claims 3, 11 – 13, 15 – 17, 21, 22, 26 – 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show refractory metal comprises tungsten (w), molybdenum (Mo), tantalum (Ta), Rhenium (Re), and /or Niobium (Nb) and a metal – insulator-metal (MIM) capacitor and a mask layer over the reflective layer and patterning and developing mask layer to form a mask and etching reflective layer except a portion underlying mask.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Little (US 2003/0123125 A1) discloses detunable Fabry-Perot interferometer and a method of tuning a Fabry-Perot interferometer provided.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MH
April 27, 2004


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800